

Supplemental Digital Appendix 1

Illustrative Examples of High-Level Training in Mass Health Communications Available for Different Groups of Medical and Non-Medical Learners

Training (start year if known)	Targeted learners (no. learners/year)	Length of training	Focus/Learning objectives	Link (all accessed on July 7, 2021)
Training for medical students/residents in journalism				
SiriusXM's "Doctors Radio"	Medical Students (4 from NYU and 1 visiting student)	4-week full time elective	<ul style="list-style-type: none"> Analyze medical studies Interpret findings clearly for a lay public audience Identify ethical and policy dimensions of healthcare controversies 	https://med.nyu.edu/education/md-degree/registration-student-records/elective-catalog/department-medicine/medical-journalism
ABC News (1995)	Residents and Fellows (2-4 residents at a time, 25-50 residents a year)	4-12-week full time elective	<ul style="list-style-type: none"> Writing for medical journalism Develop medical journalism interviewing skills Use social media to improve health literacy 	Apply here: https://t.co/FmvINWRE23?amp=1
Healthy Debates (2015)	Residents enrolled in Canadian medical schools	4-week full time elective	<ul style="list-style-type: none"> Writing for medical journalism Focused on article and opinion writing, and completing one Faces of Health Care interview 	https://healthydebate.ca/su-bmission-guidelines/
Training for physicians in journalism				
Stanford Global Health Media Fellowship (2011)	Medical students, residents, or practicing physicians in the United States (1)	1 year	<ul style="list-style-type: none"> The fundamentals of journalism and health communications Variety of media platforms, including print, online, broadcast, social, and digital media Focus on global health issues 	https://globalhealth.stanford.edu/programs/media-fellowship/
Georgetown University (2015)	Family medicine (1-2) practitioners and PCPs	1 year	<ul style="list-style-type: none"> Explores the relationship between media and health Focused on the family medicine and primary care Medical writing, reporting, editing, and blogging 	https://familymedicine.georgetown.edu/health-and-media-fellowship/
Mayo Clinic/Walter Cronkite School	Dual MD/MMC (2)	1 year	<ul style="list-style-type: none"> Reporting Focus on narrative writing, medical technical 	https://cronkite.asu.edu/mayo-cronkite-fellowship

of Journalism and Mass Communication (2010)			writing, and multimedia journalism	
Longer-term training for health care professionals in health communication				
The Dalla Lana Fellowship in Global Journalism (previously the Munk Fellowship) at the University of Toronto (2012)	Experts in different fields, worldwide (~20 experts per year, 28 MDs to date)	1 year	<ul style="list-style-type: none"> Journalism training for covering their specialty Pitching stories Reporting on facts with journalistic rigor Writing features Utilizing video and audio for reporting 	https://www.dlsph.utoronto.ca/journalism/
Public Health Programs with Master's in Health Communications	Many different programs		<ul style="list-style-type: none"> MPH Core Competencies in Communication and Informatics, see: https://www.aspph.org/teach-research/models/mph-competency-model/ Extended training in health marketing and health promotions 	Too many to list. One high quality example: Boston University, Master's Program in Health Communication https://www.bu.edu/met/courses/marketing-communications/
George Washington University Nursing School Fellowship in Health Policy and Media (2017)	For health care professionals, especially nurses, focused on health policy (4-7)	1 year (with optional 1 year extension)	<ul style="list-style-type: none"> To use media to disseminate research, information, and perspectives to shape health policy 	https://nursing.gwu.edu/fellowship-health-policy-and-media
Harvard Media and Medicine Program "How to Tell Stories that Make A Difference" (2020, unclear if continuing)	Health care providers	2 multi-day workshops and 4 months of mentoring on a project	<ul style="list-style-type: none"> Storytelling, Evidence-based effective communication Data visualization Digital media strategy selection Essays and op-ed writing Publishing Podcasting Digital tools for storytelling 	https://ghsm.hms.harvard.edu/sites/g/files/mcu871/files/assets/MediaAndMedicine/Brochure-Complete%282020-11-20%29.pdf
Shorter-term training for health care professionals in health communication				
Centers for Disease Control and Prevention Crisis,	Open to anyone, focused on professionals in public health and	1 day in-person training, online	<ul style="list-style-type: none"> Evidence-based strategies for crisis, emergency, and risk communication 	https://emergency.cdc.gov/cerc/

Emergency, Risk, Communication (CDC's CERC training)	health care (unlimited access)	training options, manual freely available		
Stanford University Health Communications Initiative (2019)	CME	Hours to brief workshops	<ul style="list-style-type: none"> • Medicine, Media, Misinformation 100-450 attendees per session • From Idea to Published Op-Ed, 100-300 per session 	https://healthcommunication.stanford.edu/what-we-do
"Media Training"	In house public relations personnel may provide ad hoc or specific media training for their employees	Generally brief		
Online Short Courses	Open to anyone	Duration and quality vary		Too many to list. One quality example is the Society for Health Care Strategy & Market Development's Resource Digest: https://www.shsmd.org/resources/crisis-communications-hospitals-and-health-systems-shsmd-resource-digest
Training for journalists in health communication				
Mayo Clinic-Cronkite Fellowship (2018)	Medical and health journalists (15-20)		<ul style="list-style-type: none"> • See how medical residents train • Experience training in medical simulations and interviewing • Advanced training on data journalism and narrative writing. 	https://cronkite.asu.edu/ou-treach/mayo-cronkite-medical-journalism-fellowship
USC Annenberg Health Journalism Fellowship (2005)	Professional journalists in the United States	Multi-day workshops plus financial support for a reporting project	<ul style="list-style-type: none"> • Journalism techniques for covering health issues 	https://centerforhealthjournalism.org/fellowships/seminars

Jason Kahn Fellowship (2015)	Journalists (1)	9-week summer internship	<ul style="list-style-type: none"> • Understanding of the cardiology field, in particular interventional cardiology • Analyzing medical studies • Sharing medical news with health professionals 	https://www.tctmd.com/Jason-Kahn-Fellowship
Harvard Medical School's Annual Media Fellowship (ended in 2019 after 20 years)	Reporters	A multi-day workshop	<ul style="list-style-type: none"> • Journalists spend time on the medical school campus and in affiliated hospitals and institutes to gain a deeper understanding of the spectrum of research and state of the science 	https://hms.harvard.edu/news-events/media/media-fellowship
Kaiser Media Fellowship in Healthcare Reporting (2000)	Journalism students or graduates (20)	3 months over the summer	<ul style="list-style-type: none"> • Implications of policy decisions for health care • Sponsors fellows to cover health policy news 	https://www.kff.org/about-kaiser-media-fellowships-in-health-reporting/
Pulitzer Center Reporting Fellowships in partnership with 34 Campuses (2009)	Students at 34 partner campuses in all fields, this has included medical students at select sites	3 months over the summer	<ul style="list-style-type: none"> • Support reporting projects focus on topics of global importance • Emphasis on issues that have gone under-reported in the mainstream American media 	https://pulitzercenter.org/education/campus-consortium-program-partners/reporting-fellowships
Association for Health Care Journalists Reporting fellowships on health care performance (2010)	Mid-career journalists (1)	1 year	<ul style="list-style-type: none"> • Reporting on the U.S health care system and health care markets 	https://www.commonwealthfund.org/fellowships/association-health-care-journalists-reporting-fellowships-health-care-performance
Association of Health Care Journalists	Open to all	Multiday Conferences & Online learning	<ul style="list-style-type: none"> • Focuses on providing continuing education for practicing health care journalists 	https://healthjournalism.org/
American Medical Writers Association	Open to all	Multiday Conferences & Online learning	<ul style="list-style-type: none"> • Focuses on providing continuing education for practicing medical writers 	https://www.amwa.org/

^aTraining opportunities in interpersonal health care communications and science communications are not addressed here, only mass health communications.

Supplemental Digital Appendix 2

Selection of Medical News Pieces Created by Stanford Global Health Media Fellows During or After Their Fellowship

Media type	Examples (all links accessed on September 7, 2021)
Social Media: Blogs	<ul style="list-style-type: none"> • <i>Tea with MD</i>. Tea with MD. https://www.teawithmd.com/ • 2 Minute Medicine. <i>Maren Shapiro</i>. https://www.2minutemedicine.com/maren-shapiro/
Social Media: Instagram	<ul style="list-style-type: none"> • <i>Instagram: Tea with MD</i>. Instagram Tea with MD. Retrieved February 1, 2021, from www.instagram.com/teawithMD
Social Media: TikTok	<ul style="list-style-type: none"> • <i>Dr. Joyce (@teawithmd) Official TikTok Watch Dr. Joyce's Newest TikTok Videos</i>. TikTok. https://www.tiktok.com/@teawithmd?lang=en
Podcast	<ul style="list-style-type: none"> • <i>Pregnancy Safe Skincare: What You Can and Can't Use With Dr. Joyce, MD FAAD by Gloss Angeles • A podcast on.</i> (n.d.). Anchor. https://anchor.fm/gloss-angeles/episodes/Pregnancy-Safe-Skincare-What-You-Can-and-Cant-Use-With-Dr--Joyce--MD-FAAD-eeippi
Book Chapter	<ul style="list-style-type: none"> • Malaria in Refugees. In Annamalai A, ed <i>Refugee Health Care</i> (95-102). New York: Springer Science + Business Media, 2014.
Non-peer print articles	<ul style="list-style-type: none"> • Lost in Translation. <i>Minnesota Medicine</i>, April 2013, 24-25.
Video News Report	<ul style="list-style-type: none"> • <i>Insurer sent \$33,000 to a man struggling with addiction. He used the cash to go on a binge -- and died</i>. CNN. (2019, April 23). https://edition.cnn.com/2019/04/23/health/anthem-blue-cross-payments-patient-overdose/index.html • Laotian pediatric physical exam (for Health Frontiers in Laos): https://www.youtube.com/watch?v=4wd6ab_bgt4&t=1757s • Dengue PSA (for WHO in Laos): https://www.youtube.com/watch?v=meM9rhsF3I0&t=1425s • Hepatitis A PSA (for WHO in Laos): https://www.youtube.com/watch?v=eZGjWBdXnik
Published Photographs	<ul style="list-style-type: none"> • 8 Photos published in 4 different articles in a series on Syrian Refugee Children in Lebanon on NBCNews.com • WHO Leprosy poster presented at International Leprosy Summit in Bangkok, Thailand and distributed internationally • WHO-SEARO Decade of Achievement Commemorative Book • WHO Lead Paint awareness campaign poster
Online Articles	<p>2020</p> <ul style="list-style-type: none"> • <i>The eerie similarities between the anti-mask and the anti-vax</i>. CNN. (2020, August 4). https://edition.cnn.com/2020/08/04/health/coronavirus-mask-refusers-vaxxers-opinion/index.html • <i>Back to school: Some kids scared as adults debate reopening risks</i>. CNN. (2020, July 28). https://edition.cnn.com/2020/07/28/health/back-to-school-scared-kids-wellness/index.html • <i>What to look for in facial sunscreen if you have dry, oily, or sensitive skin</i>. Insider. (2020, July 24) https://www.insider.com/what-to-look-for-in-facial-sunscreen

- *Pediatrician: The truth about reopening schools during Covid (opinion)*. CNN. (2020, July 11). <https://edition.cnn.com/2020/07/11/opinions/schools-reopen-coronavirus-donald-trump-bracho/index.html>
 - *Glycerin: this skincare ingredient is effective at hydrating and treating dry skin*. Stylist. (2020, July 9). <https://www.stylist.co.uk/beauty/glycerin-skincare-benefits-best-products-how-to-use/389477>
 - *Dermatologists Are Sharing Thoughtful Tips For Skin Conditions Caused By Medical Masks*. Glam. (2020, June 17). <https://www.glam.com/beauty/dermatologist-tips-treating-skin-conditions-caused-by-medical-masks-ppe>
 - *There's a Simple Reason Why So Many People Seem to Have the Same Freckle*. Time. (2019, May 31). <https://time.com/5599179/freckle-on-wrist-myth-explained/>
 - *Supergoop's Glow Stick Sunscreen SPF 50 — Editor Review*. Allure. (2020, June 15). <https://www.allure.com/story/supergoop-glow-stick-sunscreen-spf-50-review>
 - *The full toll of Covid-19 on children's mental health won't be known for years*. CNN. (2020, May 28). <https://edition.cnn.com/2020/05/28/health/coronavirus-mental-health-children/index.html>
 - *These Graphic Pictures Show What Can Happen If You Go Outside After Handling Limes*. BuzzFeed. (2020, May 26). <https://www.buzzfeed.com/farrahpenn/phytophotodermatitis-sunlight-lime-photos>
 - *Whistleblower doctors decry immigrant family detention*. CNN. (2019, May 23). <https://edition.cnn.com/2019/05/23/health/ice-family-detention-whistleblowers-doctors/index.html>
 - *Why overcoming Covid-19 is just the first hurdle*. CNN. (2020, May 20). <https://edition.cnn.com/2020/05/19/health/coronavirus-recovery-long-journey-wellness/index.html>
 - *Anthony Fauci says US should double its testing over next several weeks - CNNPolitics*. CNN. (2020, April 26). <https://edition.cnn.com/2020/04/25/politics/fauci-us-double-diagnostic-testing-coronavirus/index.html>
 - *Covid-19: How fear of the virus is affecting children's health*. CNN. (2020a, April 18). <https://edition.cnn.com/2020/04/18/health/coronavirus-children-delayed-care/index.html>
 - *I Spoke To Two Dermatologists About The TikTok Mole Removal Trend And Y'all Better Just Stop It*. BuzzFeed. (2020, April 18). <https://www.buzzfeed.com/daniellaemanuel/tiktok-removing-moles-at-home?origin=web-hf>
 - *President Trump suggests taking hydroxychloroquine to protect against Covid-19 despite lack of proof*. CNN. (2020, April 11). <https://edition.cnn.com/2020/04/05/health/trump-lupus-hydroxychloroquine-coronavirus-protection/index.html>
 - *BCG: How a 100-year-old vaccine for tuberculosis could help fight Covid-19*. CNN. (2020, April 10).
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<https://edition.cnn.com/2020/04/09/health/tuberculosis-bcg-vaccine-coronavirus/index.html>

- *How smoking, vaping and drug use might increase risks from Covid-19.* CBS58. (2020, March 20). <https://www.cbs58.com/news/how-smoking-vaping-and-drug-use-might-increase-risks-from-covid-19>
- *Exclusive: Doctor breaks down importance of social distancing, sanitizing, and scheduling amid COVID-19 crisis.* Glamour. (2020, March 19). <https://www.glamour.co.za/wellness/exclusive-doctor-breaks-down-importance-of-social-distancing-sanitizing-and-scheduling-amid-covid-19-crisis-45202076>
- *11 ways to teach young kids the value of cleaning up — and get them to do it willingly.* NBC News. (2020, March 2). <https://www.nbcnews.com/better/lifestyle/11-ways-teach-young-kids-value-cleaning-get-them-do-ncna1144321>
- *E-cigarette epidemic: FDA still fails to protect youth, American Lung Association says.* CNN. (2020, January 30). <https://edition.cnn.com/2020/01/29/health/lung-association-tobacco-control-report/index.html>

2019

- *Military Surgery in the Spotlight.* US News and Report. (2019, October 29). <https://www.usnews.com/news/health-news/articles/2019-10-29/military-surgery-in-the-spotlight-at-american-college-of-surgeons-meeting>
- *Cases of lung disease possibly linked to vaping continue to rise. This teen was given a “second chance.”* CNN. (2019, August 30). <https://edition.cnn.com/2019/08/30/health/vaping-lung-disease-texas-teen/index.html>
- *Summer Skin-Care Routines and Tips From Dermatologists.* Allure. (2019, July 16). <https://www.allure.com/story/dermatologist-summer-skin-care-routine-products>
- *The Best \$15 (Or Less) Drugstore Sunscreens, According to Derms.* The Strategist. (2019, July 11). <https://nymag.com/strategist/article/best-drugstore-sunscreens.html>
- *What is the MMR vaccine? Measles vaccine side effects, age, more.* TODAY.Com. (2019, April 17). <https://www.today.com/health/what-mmr-vaccine-measles-vaccine-side-effects-age-more-t149366>
- *For unaccompanied minors, countdown to 18th birthday is filled with fear and dread.* CNN. (2019, March 28). <https://edition.cnn.com/2019/03/28/health/unaccompanied-minors-18th-birthday/index.html>
- *This is how I partnered with parents who didn’t want to vaccinate.* CNN. (2019a, February 9). <https://edition.cnn.com/2019/02/09/health/parents-who-refuse-vaccines/index.html>

2018

- *#JUUL: How social media hyped nicotine for a new generation.* CNN. (2018, December 19). <https://edition.cnn.com/2018/12/17/health/juul-social-media-influencers/index.html>
 - *Patient remains awake for 90 minutes of CPR, doctor says.* CNN. (2018, June 04). <https://www.cnn.com/2018/06/04/health/cpr-awareness-resuscitation-study/index.html>
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- *Pregnancy complications might 'turn on' schizophrenia genes, study says.* CNN. (2018, May 30). <https://www.cnn.com/2018/05/30/health/schizophrenia-genes-pregnancy-placenta-study/index.html>
- *Common antibiotic significantly reduces child deaths across Africa.* CNN. (2018, April 26). <https://www.cnn.com/2018/04/26/health/azithromycin-childhood-mortality-africa-study-intl/index.htm>
- *Wounded veteran receives first penis and scrotum transplant.* CNN. (2018, April 24). <https://www.cnn.com/2018/04/24/health/penis-scrotum-transplant-surgery-hopkins/index.html>
- *Night owls have 10% higher mortality risk, study says.* CNN. (2018, April 13). <https://www.cnn.com/2018/04/12/health/night-owl-mortality-risk-study/index.html>
- *Marijuana legalization could help offset opioid epidemic, studies find.* CNN. (2018, April 02). <https://www.cnn.com/2018/04/02/health/medical-cannabis-law-opioid-prescription-study/index.html>
- *Liver transplant saves one teen, but identical twin dies.* CNN. (2018, March 23). <https://www.cnn.com/2018/03/23/health/identical-twins-liver-transplant/index.html>
- *Male birth control pill one step closer to reality, researchers say.* CNN. (2018, March 21). <https://www.cnn.com/2018/03/20/health/male-birth-control-pill-study/index.html>
- *US deaths from lead exposure 10 times higher than thought, study suggests.* CNN. (2018, March 12). <https://www.cnn.com/2018/03/12/health/lead-exposure-cardiovascular-disease-study/index.html>
- *Psychiatric illnesses share similar patterns of gene activity, study suggests.* CNN. (2018, February 13). <https://www.cnn.com/2018/02/13/health/psychiatric-illnesses-gene-activity-study/index.html>

2017

- *Foreign doctors filling shortages, communities who need them uncertain amid visa changes* ABC News. (2017, June 1). <https://abcnews.go.com/Health/foreign-doctors-filling-shortages-communities-uncertain-amid-visa/story?id=47746645>
- *Program helping US areas of need get foreign doctors up for renewal this week.* ABC News. (2017, April 27). <https://abcnews.go.com/Health/program-helping-us-areas-foreign-doctors-renewal-week/story?id=47054167>
- *Foreign medical students say travel ban places their futures in jeopardy.* ABC News. (2017, March 16). <https://abcnews.go.com/Health/foreign-medical-students-travel-ban-places-futures-jeopardy/story?id=46024420>

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2016

- *The 6 biggest health mistakes women make in their 20s.* TODAY.Com. (2016, August 29). <http://www.today.com/health/6-biggest-health-mistakes-women-make-their-20s-t30046>

2015

- *Refugee Worker Cares for Syria's Orphans*. NBC News. (2015, June 11). <https://www.nbcnews.com/storyline/syrias-children/refugee-worker-cares-syrias-orphans-n51446>
- *Resilient Syrian Children Find Play, Laughter*. NBC News. (2015, June 11). <https://www.nbcnews.com/storyline/syrias-children/resilient-syrian-children-find-play-laughter-n50111>
- *Breast Cancer Cocktail Buys More Than a Year of Life*. NBC News. (2015, June 11). <http://www.nbcnews.com/health/cancer/breast-cancer-cocktail-buys-more-year-life-n308426>
- *No High Risk: Marijuana May be Less Harmful Than Alcohol, Tobacco*. NBC News. (2015b, June 11). <http://www.nbcnews.com/storyline/legal-pot/no-high-risk-marijuana-may-be-less-harmful-alcohol-tobacco-n312876>
- *HRT May Help Younger Women With Hot Flashes, Study Finds*. NBC News. (2015b, June 11). <http://www.nbcnews.com/health/womens-health/hrt-may-help-younger-women-hot-flashes-study-finds-n320316>
- *Older Women May Face Higher Risk of Cervical Cancer*. NBC News (2015, June 11). <https://www.nbcnews.com/health/womens-health/older-women-may-face-higher-risk-cervical-cancer-n101841>
- *Now a "Pollen Vortex"? Wild Weather May Mean Allergy Nightmare*. NBC News. (2015, June 11). <https://www.nbcnews.com/health/allergies/now-pollen-vortex-wild-weather-may-mean-allergy-nightmare-n83331>
- *Doctors' Free Samples Have a Hidden Cost*. NBC News (2015a, June 11). <https://www.nbcnews.com/health/health-care/doctors-free-samples-have-hidden-cost-n82326>
- *HPV Shots for Boys Could Save Millions in "Oral Cancer" Costs*. NBC News. (2015b, June 11). <http://www.nbcnews.com/health/kids-health/hpv-boys-n339591>
- *Pacifier Uses Mom's Voice to Help Premies Learn to Eat*. NBC News. (2015a, June 11). <https://www.nbcnews.com/health/kids-health/pacifier-uses-moms-voice-help-preemies-learn-eat-n32261>
- *Bullying's Health Effects Snowball Over Time*. NBC News. (2015a, June 11). <https://www.nbcnews.com/health/kids-health/bullyings-health-effects-snowball-over-time-n30806>
- *Sofia Vergara's frozen embryo fight: What's the harm in keeping them?* TODAY.Com. (2015b, April 17). <http://www.today.com/health/sofia-vergaras-frozen-embryo-fight-whats-harm-keeping-them-t16036>
- *Internet searches make us think we're smarter than we really are*. TODAY.Com. (2015, April 1). <https://www.today.com/health/internet-searches-make-us-think-were-smarter-we-really-are-t12366>
- *IUDs and hormone implants: Here's everything you need to know*. TODAY.Com. (2015, February 24). <http://www.today.com/health/iuds-hormone-implants-heres-everything-you-need-know-t4971>

2014

- *Gene variant puts women at higher risk of Alzheimer's than it does men, study finds*. News Center. (2014, April 14). <https://med.stanford.edu/news/all-news/2014/04/gene-variant-puts-women-at-higher-risk-of-alzheimers-than-it-does-men-study-finds.html>

2013

- *Meningitis Outbreak Among Gay Men in New York City*. NBCNews.com (2013, April 21). <https://www.nbcnews.com/health/health-news/deadly-meningitis-outbreak-among-gay-men-worries-officials-flna6c9534376> ~150,000 page views.
- *New IVF Technology Helps Couples Conceive*. NBC News: The Daily Nightly. (2013, March 10). <https://www.nbcnews.com/nightly-news/new-ivf-technology-helps-couples-conceive-flna1c8793293>
- *Balancing Bad and Good Science in Broadcast News*. Open Society Foundation. Voices: Grantee Spotlight. (2013, March 7). <https://www.opensocietyfoundations.org/voices/balancing-bad-and-good-science-broadcast-news>
- *What Parents Need to Know About Earaches*. NBC News: The Daily Nightly. (2013, February 25). <https://www.nbcnews.com/nightly-news/what-parents-need-know-about-earaches-flna1c8544606>
- *Men Say Their Breast Cancer Was Caused by Contaminated Water at Camp Lejeune*. NBC News: Rock Center. (2013, February 22). <https://www.nbcnews.com/nightly-news/men-say-their-breast-cancer-was-caused-contaminated-water-camp-flna1c8505683>

2012

- *Olympic Exercise Plan: How to Work Out Like a Champion*. Livescience.Com. (2012, July 27). <https://www.livescience.com/21901-olympic-exercise-plan-work.html>
 - *The IUD: What Do Gynecologists Know That Other Women Don't?* Livescience.Com. (2012, July 26). <https://www.livescience.com/21866-iud-gynecologists-birth-control-myths.html>
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